

Remarks

The above Amendments and these Remarks are in reply to the Office action mailed May 2, 2002. With Claims 18, 23-24 and 30 being withdrawn from consideration, Claims 1-17, 19-22 and 25-29 are presented herewith for consideration.

Election of Invention

In the Office Action the Examiner subjected claims 1-30 of the application to a restriction requirement. On page 2 of the aforementioned Office Action, the Examiner grouped claims 1-22 and 25-30 into Group I as drawn to an invention classified in class 376, subclass 146; while claims 23 and 24 have been grouped into Group II as drawn to an invention classified in class 376, subclass 100.

Applicant elects prosecution on Group I claims - Claims 1-22 and 25-30. Group II claims 23 and 24 have been withdrawn from consideration.

Election of Species

The Examiner further requires Applicant under 35 U.S.C. §121 to elect one of the disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant initially respectfully disagrees with the Examiner's assertion that no claim is generic. While no generic claim has been indicated to be allowable as yet, Claims 1 and 25 are generic to some or all of the disclosed embodiments.

Having so indicated, applicant elects the species disclosed in association with Fig. 1, indicated as Group A in the Office Action. The claims which read on this embodiment are Claims 1-17, 19-22 and 25-29.

Election of Ultimate Species of Energy Source

Upon election of the species as identified above, the Examiner further required applicant under 35 U.S.C. §121 to elect a single ultimate species of energy source, for the purposes of examination. Applicant elects all embodiments operating by a sonic energy source. Of the claims elected thus far, the claims which read on this embodiment are Claims 1-17, 19-22 and 25-29.

Election of Ultimate Species of Reactant Material

Upon election of species as identified above, applicant is further required under 35 U.S.C. §121 to elect a single ultimate species of reactant material (e.g. H₂, H₂O, D₂O, etc., including any liquid it may be in)(as if in compound, composition or mixture form, the exact constituents of said compound, composition or mixture), for purposes of examination. Applicant hereby elects to proceed on embodiments containing D₂O. Of the claims elected thus far, claims which read on this embodiment are Claims 1-17, 19-22 and 25-29.

With regard to this election requirement to a single ultimate species of reactant material, the Examiner has further requested that applicant further limit the species to a particular liquid, compound, composition or mixture. Applicant respectfully submits that this is not a proper requirement for an election of a single species. The MPEP §806.04(f) states:

Claims Restricted to Species, by Mutually Exclusive Characteristics

Claims to be restricted to different species must be mutually exclusive. The general test as to when claims are restricted, respectively, to different species *is the fact that one claim recites limitations which under the disclosure are found in a first species but not in a second, while a second claim recites limitations disclosed only for the second species and not the first.* This is frequently expressed by saying that claims to be restricted to different species must recite the mutually exclusive characteristics of such species. (Emphasis Added).

As part of an election requirement to name a single reactant, it is respectfully submitted that it is improper to further require that applicant further limit the species to a particular medium such as liquid, compound, composition or mixture. Namely, in electing the species of the invention having D₂O, this species may be found in each of the respective mediums: liquid, compound, composition or mixture. Therefore, the respective mediums are not mutually exclusive, and cannot form the further basis of a restriction requirement directed to the elected reactant.

Election of Ultimate Species of Catalytic Material

Upon election of one of the species as identified above, applicant is further required under 35 U.S.C. §121 to elect a single ultimate species of catalytic material, for contact with or positioning atoms, etc., of the reactant material, for purposes of examination. Applicant respectfully submits that there is no patentable distinction between the respective catalytic materials, and therefore respectfully requests that the election as to catalytic material be withdrawn.

Election of Ultimate Species of the Physical Form

Upon election of one of the species as identified above, applicant is further required under 35 U.S.C. §121 to elect a single ultimate species of physical form of the catalytic material, for purposes of examination. Applicant respectfully submits that there is no patentable distinction between the respective physical forms of catalytic materials, and therefore respectfully requests that the election as to the physical form of the catalytic material be withdrawn.

Election of Ultimate Species of the Liquid In Which Reactant is Found

Upon election of one of the species as identified above, applicant is further required under 35 U.S.C. §121 to elect a single ultimate species of liquid in which the reactant is found. Namely, whether the reactant material is itself a liquid; whether the reactant material is dissolved in a liquid; or whether the reactant material is mixed with a liquid. Applicant respectfully submits that there is no patentable distinction between the respective liquid forms recited above, and therefore respectfully requests that the election as to the liquid in which the reactant material is found be withdrawn.

Election of Ultimate Species of the Means for Conducting Heat

Upon election of one of the species as identified above, applicant is further required under 35 U.S.C. §121 to elect a single ultimate species of the means for conducting heat for purposes of examination. Applicant elects species whereby the means for conducting heat includes a circulation system and a heat exchanger. Of the claims previously elected, claims directed to this species are Claims 1-17, 19-22 and 25-29.

Based on the above elections and these remarks, consideration of Claims 1-17, 19-22 and 25-29 is respectfully requested.

The Examiner's prompt attention to this matter is greatly appreciated. Should further questions remain, the Examiner is invited to contact the undersigned attorney by telephone.

Enclosed is a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 for extending the time to respond up to and including today, July 22, 2002.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 501826 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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By: 

Brian I. Marcus
Reg. No. 34,511

VIERRA MAGEN MARCUS HARMON & DENIRO LLP
685 Market Street, Suite 540
San Francisco, CA 94105-4206
Telephone: 415-369-9660
Facsimile: 415-369-9665